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# **GCSE MARKING SCHEME**

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**SUMMER 2023**

**GCSE  
DESIGN AND TECHNOLOGY  
FASHION & TEXTILES - UNIT 1  
3602U10-1**

## **INTRODUCTION**

This marking scheme was used by WJEC for the 2023 examination. It was finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conference was held shortly after the paper was taken so that reference could be made to the full range of candidates' responses, with photocopied scripts forming the basis of discussion. The aim of the conference was to ensure that the marking scheme was interpreted and applied in the same way by all examiners.

It is hoped that this information will be of assistance to centres but it is recognised at the same time that, without the benefit of participation in the examiners' conference, teachers may have different views on certain matters of detail or interpretation.

WJEC regrets that it cannot enter into any discussion or correspondence about this marking scheme.

# GCSE DESIGN AND TECHNOLOGY

## FASHION & TEXTILES - UNIT 1

### SUMMER 2023 MARK SCHEME

Question 1		AO3	AO4	Mark
Textile fibres come from a variety of sources..				
(a) (i)	State the fibre that comes from <b>each</b> source pictured below:		✓	3 x [1]
<p><i>Only acceptable answers in this order:</i></p> <ul style="list-style-type: none"> <li>• Cotton <b>1 mark</b></li> <li>• Silk <b>1 mark</b></li> <li>• Wool <b>1 mark</b></li> </ul>				
(ii)	Describe the environmental benefits that all the fibres featured above have in common.		✓	[3]
<p><i>Answers that indicate an understanding of the pictured natural fibres should be awarded up to 3 marks based on:</i></p> <ul style="list-style-type: none"> <li>• They are all from a sustainable source which will not run out</li> <li>• They are less of a drain on natural resources unlike finite resources</li> <li>• They are biodegradable and will rot if in landfill, less polluting</li> </ul> <p><i>Note: candidates may refer to all being natural fibres but unless qualified does not gain credit.</i></p> <p><b>Guidance to markers</b></p> <p><i>Incorrect/no answer</i> 0</p> <p><i>Brief description, some understanding for example:</i> They are all biodegradable 1</p> <p><i>More detail with understanding for example:</i> They are all biodegradable meaning if they end up in landfill will fully decompose to nothing. 2</p> <p><i>A detailed description with clear understanding for example:</i> They are all from sustainable sources and biodegradable. This means the fibres will keep growing and they will fully decompose and not pollute the earth if they go to landfill. 3</p>				

(b)	Bamboo fibre is increasingly used in the manufacture of clothing. State <b>one</b> property of bamboo and explain what makes it suitable for clothes.		✓	[3]
<p><i>Answers that indicate an understanding of bamboo should be awarded up to 3 marks each based on:</i></p> <ul style="list-style-type: none"> <li>• Properties: fine and lustrous; soft; non-irritant; absorbent; high tensile strength; anti-microbial</li> <li>• Explanations are dependent on an appropriate property being stated.</li> </ul> <p><i>Note: Answers will depend on the stated property. The properties listed are those that make it specifically suitable for clothing.</i></p> <p><b>Guidance to markers</b></p> <p><i>Incorrect/no answer</i> 0</p> <p>Appropriate property or example: non-irritant 1</p> <p><i>Brief explanation for example:</i> It won't irritate the skin of the wearer. 1</p> <p><i>More detail with understanding for example:</i> It would suit someone with sensitive skin as it won't irritate them making them feel more comfortable in their clothes. 2</p>				
(c)	Fibres are spun in different ways to make them into useable yarns. Underline the correct name for the textured yarn shown below:		✓	[1]
<p>Only one acceptable answer:</p> <ul style="list-style-type: none"> <li>• Chenille <b>1 mark</b></li> </ul>				
<b>Total</b>				<b>10</b>

**Question 2**

Fashion and textile products are manufactured using different scales of production.		AO3	AO4	Mark
(a) (i)	Explain why the products shown below would be manufactured using the stated scale of production.		✓	[4]
	<p><i>Answers that indicate an understanding of different scales of production can be awarded up to 2 marks for each stated scale based on:</i></p> <p><b>Batch</b></p> <ul style="list-style-type: none"> <li>• A set number of products in a specific period of time</li> <li>• Limited appeal as the product is aimed at children</li> <li>• The design is aimed at children who like gaming – limited</li> <li>• If the product is well made it will not need to be replaced that often further reducing demand</li> <li>• Batch allows for a slightly more flexible system in order to meet demand for different styles of food bags.</li> </ul> <p><b>Mass</b></p> <ul style="list-style-type: none"> <li>• Demand for a basic style T shirt is consistent</li> <li>• Basic style has not changed in years</li> <li>• Constant demand therefore practical to mass produce in large quantities - on-going</li> <li>• Can be made in greige then dyed to suit colour trends later</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect / no answer</i></p> <p><i>Brief statement not developed for example:</i> As it is for children not that many are needed.</p> <p><i>A more detailed explanation with understanding:</i> There is a limited target market of children who like gaming. This in turn limits the demand so less are needed.</p>			0
				1
				2

(ii)	Standard stock components are used in the manufacture of fashion and textile products. Explain why this is beneficial to the manufacturer.		✓	[2]
<p><i>Answers that indicate an understanding of stock forms and the benefits to the manufacturer can be awarded up to 2 marks based on:</i></p> <ul style="list-style-type: none"> <li>• Stock forms refer to readily available components in a set size/colour/material etc</li> <li>• Made by specialist companies this makes them cheaper for the manufacturer</li> <li>• Readily available to use when needed – efficient system</li> <li>• Wide choice available to suit need</li> <li>• Machines do not have to be adapted to suit changes of size etc</li> <li>• Knowledge that components comply and conform to industry standards</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect/no answer</i> 0</p> <p><i>Brief description, very little detail for example:</i> Readily available in the right style when needed. 1</p> <p><i>A more detailed explanation with understanding:</i> It is more cost effective for the manufacturer to buy readily available components rather than manufacture them in-house. 2</p>				

(b)	<p>The thermal cool bag was designed with the needs and wants of the users taken into consideration.</p> <p>Explain how the bag meets the functional requirements of the user.</p>		✓	[4]
<p><i>Answers that indicate an understanding of the function of the thermal cool bag and how it meets the needs of the user should be awarded up to 4 marks based on:</i></p> <ul style="list-style-type: none"> <li>• Thermal qualities keep food warm and/or hot.</li> <li>• Separate compartments for different food types ie sweet or savoury; hot or cold.</li> <li>• Large spacious compartments for sufficient food/drinks.</li> <li>• Food stored at safe temperature as it is thermal.</li> <li>• Zipped compartments keep the food contained.</li> <li>• Carrying handle to easily transport.</li> <li>• Padding also protects contents.</li> <li>• Double zips make it easy to open.</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect/no answer</i> 0</p> <p><i>Brief description, some understanding for example:</i> The bag is big enough to hold enough food for lunch. 1</p> <p><i>More detail with understanding for example:</i> The cool bag has two separate spacious compartments to hold all the child's lunch including being able to separate food types. 2</p> <p><i>A detailed description with clear understanding for example:</i> The two spacious compartments will keep different food separate but allow enough food to be stored for lunch. Being a cool bag, it will keep the food at the right temperature. 3</p> <p><i>A full and detailed explanation with very clear understanding for example:</i> The thermal cool bag will store the food at the right temperature so it is safer to use. Different food can be kept separately in the two spacious compartments meaning fruit or yogurt can be kept away from savoury snacks. It is also big enough to hold whatever amount the child needs. 4</p>				
<b>Total</b>				<b>10</b>

**Question 3**

Fashion and textile products can be embellished using a variety of techniques and processes.		AO3	AO4	Mark
(a)	Complete the table below by briefly explaining the following processes.		✓	[4]
<p><i>Answers that indicate an understanding of each process can be awarded up to 2 marks for each process based on:</i></p> <p><u>Tie and dye</u> Fabric is folded/scrunched up and tied tightly with string (other methods include clips, elastic bands, pegs for example). Where the fabric is tied, the dye will not penetrate, it resists the dye and remains the original colour. This makes the pattern.</p> <p><u>Stencilling</u> A design is cut out from card/acetate sheet. Each section of the design is separate to the adjacent section. Paint /dye is pushed through the holes when the stencil is laid on the fabric. This makes the stencilled design.</p> <p><b>Guidance to markers</b></p> <p><i>Incorrect / no answer</i> 0</p> <p><i>A brief description lacks detail for example:</i> 1 You tie the fabric and put it in dye.</p> <p><i>An explanation of the process with clear understanding for example:</i> 2 The fabric is tied very tightly and dipped in the dye. Where it has been tied, this resists the dye leaving the pattern.</p>				
(b)	The make-up bag shown below has a 'sheep' appliqué design on the front.			
(i)	Before stitching the sheep design in place on the make-up bag, the fabric for the sheep would have been reinforced. Explain why this is necessary.		✓	[3]
<p><i>Answers that indicate an understanding of applique should be awarded up to 3 marks based on:</i></p> <ul style="list-style-type: none"> <li>• The fabric has interfacing ironed onto the back of it to strengthen it</li> <li>• This stabilises the fabric and prevents it stretching - reinforced</li> <li>• When placed on the fabric it prevents it moving against the base fabric/creasing whilst being stitched.</li> <li>• The end result will be flat/ better quality finish.</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect / no answer</i> 0</p> <p><i>Brief description, lacks detail for example:</i> 1 It is reinforced to stop it from moving when sewing it.</p> <p><i>Some detail with understanding for example:</i> 2 It is reinforced with interfacing to prevent it from moving and stretching when sewing it.</p> <p><i>A full and detailed explanation with clear understanding for example:</i> 3 It is reinforced with interfacing to prevent it from moving and stretching whilst it is being sewn. This allows it to lie flat for a better finish.</p>				

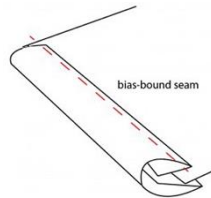


(ii)	<p>Appliqué and patchwork are highly creative forms of embellishing textile products and are an effective means of reducing waste.</p> <p>Discuss this statement with reference to the environmental benefits.</p>		✓	[4]
<p><i>Answers that indicate an understanding of the benefits to the environment of applique and patchwork should be awarded up to 4 marks based on:</i></p> <ul style="list-style-type: none"> <li>• Applique uses small offcuts to create a design – reuse</li> <li>• Patchwork consists of small pieces all sewn together to make a larger piece – reuse</li> <li>• Both use up left over pieces of fabric – can be highly creative effective methods of reducing waste</li> <li>• Fabric are kept in the cycle for longer reduces waste</li> <li>• Manufacturers sell off cuts from waste for patchwork etc from lay-planning on an industrial scale – reuse</li> <li>• Old clothes can be cut up and made into something else recycle/reuse</li> <li>• Less waste goes to landfill in the long term</li> <li>• Landfill issues: long term pollution, gases released, detrimental to wildlife</li> <li>• Synthetic fibres do not decompose – long term issues</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect/no answer</i> 0</p> <p><i>Brief description, very little detail for example:</i> As applique and patchwork use up left over fabrics this reduces waste. 1</p> <p><i>Some detail with some understanding of the environmental benefits for example:</i> As applique and patchwork both use up left over fabrics this reduces the amount of waste that could potentially go to landfill. 2</p> <p><i>A more detailed discussion with clear understanding of the environmental benefits for example:</i> As applique and patchwork both use up left over fabrics this reduces the amount of waste that could potentially go to landfill. Far too much waste fabric goes to landfill which is a cause of pollution. 3</p> <p><i>A full and detailed discussion with depth of understanding of the environmental benefits for example:</i> As applique and patchwork both use up left over fabrics this reduces the amount of waste that could potentially go to landfill. Far too much waste fabric goes to landfill and some fabrics do not break down. Gases are released into the atmosphere as a result of landfill leading to a rise in pollution levels. 4</p>				

(c)	<p>The Laura Ashley Company is renowned for co-ordinated ranges of print fabrics for the home.</p> <p>Explain what the term 'co-ordinated' means with reference to Laura Ashley's furnishing fabrics.</p>		✓	[4]	
<p><i>Answers that indicate an understanding of co-ordinated fabrics associated with Laura Ashley should be awarded up to 4 marks based on:</i></p>					
<ul style="list-style-type: none"> <li>• Co-ordinated: prints (geometric, floral etc) linked through a colour palette with plain fabric, checks and stripes</li> <li>• Prints can be quite large and/or small but sit alongside each other without clashing.</li> <li>• L A prints consisted of tiny flowery prints matched with geometric repeat patterns, stripes and checks.</li> <li>• L A brand put furnishing fabric collections together for a complete look for the home. Customer could buy all that is needed in one place.</li> <li>• Considered a successful innovation at the time.</li> <li>• Still reflects the company ethos today.</li> </ul>					
<p><b>Guidance to markers</b></p>					
<p><i>Incorrect/no answer</i></p>					0
<p><i>Brief description, very little detail for example:</i>          Laura Ashley's printed furnishing fabrics all match together through the use of colours.</p>					1
<p><i>Some detail with some understanding of LA's coordinated style for furnishing fabric example:</i>          Laura Ashley's printed furnishing fabrics consist of floral, striped and geometric prints that all match together through the use of colours.</p>					2
<p><i>A more detailed explanation with clear understanding of LA's coordinated style for furnishing fabric for example:</i>          Laura Ashley's printed furnishing fabrics consist of floral, stripe, check and geometric prints that all match together through the use of the same colour palette. This means they look good together to form an overall co-ordinated look.</p>					3
<p><i>A full and detailed explanation with depth of understanding of LA's coordinated style for furnishing fabric for example:</i>          Laura Ashley's printed furnishing fabrics consist of repeat patterns in floral, stripe, check and geometric prints that all match together through the use of the same colour palette. The designs work together, do not clash and can be used together to form an overall co-ordinated look for the home.</p>					4
<b>Total</b>				<b>15</b>	

**Question 4**

		AO3	AO4	Mark
The polyester fleece gilet shown below is suitable for use in cooler months. The fleece fabric has been made from recycled plastic bottles.				
(a)	The neckline, armholes and front edge have a contrasting blue binding to finish the edges of the fleece gilet, as shown above.			
(i)	Explain why this is a suitable finish for the fleece fabric.		✓	[2]
<p><i>Answers that indicate an understanding of bound finishes can be awarded up to 2 marks based on:</i></p> <ul style="list-style-type: none"> <li>• The binding conceals the raw edge of the fabric.</li> <li>• The binding wraps the edge of the fabric so that no raw edges are visible– neat finish, quite flat.</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect / no answer</i></p> <p><i>A simple statement for example:</i> Covers the raw edge.</p> <p><i>An explanation with some detail for example:</i> It wraps over the edge of the fabric and conceals all raw edges, a neat finish.</p>				0 1 2
(ii)	Using notes and sketches, show how a binding could be attached to the edge of the fabric. Note: a simple annotated cross section could be used.		✓	[3]
<p><i>Answers that indicate an understanding of attaching a binding should be awarded up to 3 marks based on:</i></p> <ul style="list-style-type: none"> <li>• It wraps over the edge of the fabric</li> <li>• Binding edge should be folded in</li> <li>• Stitched through the fabric and binding</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect / no answer</i></p> <p><i>Very basic outline lacks detail.</i></p> <p><i>Simple sketch and notes, process could work.</i></p> <p><i>Sketch is technically correct, good understanding.</i></p>				0 1 2 3

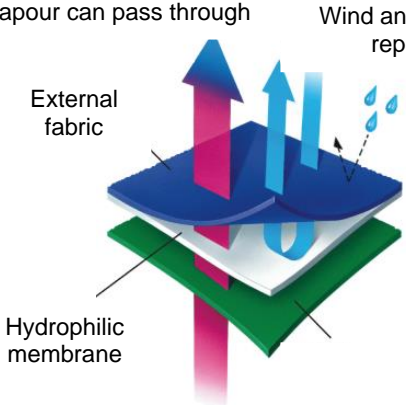


(b)	The fleece fabric is a knitted construction.			
(i)	State the type of knitted construction shown in the diagram below.		✓	[1]
	<i>Only acceptable answer:</i> Weft knitting. <b>1 mark</b>			
(ii)	Describe, in detail, <b>two</b> advantages to the user of wearing a gilet made from the knitted fabric.		✓	[4]
	<p><i>Answers that indicate an understanding of knitted fabrics when used for clothing can be awarded up to 2 marks for each advantage based on:</i></p> <ul style="list-style-type: none"> <li>• Knitted fabric stretches, and is more comfortable to wear as it molds to your shape</li> <li>• Less restrictive due to the extensibility of the knit – stretch</li> <li>• The construction of knitted fabric traps air (within the loops) which keeps the wearer warmer. Body heat cannot escape.</li> <li>• Generally, knits have a softer texture, comfortable</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect / no answer</i> 0</p> <p><i>Brief description, lacks detail for example:</i> Knitted fabric stretches to fit. 1</p> <p><i>A detailed description with understanding for example:</i> Knitted fabric is less restrictive and can stretch to fit the person for more comfort. 2</p>			
(c)	The fleece fabric used for the gilet has a brushed finish. Evaluate the effect of brushing the fleece and why it would support the function of the gilet.		✓	[5]
	<p><i>Answers that indicate an understanding of brushed fabrics and show <u>evidence of appraisal</u> should be awarded up to 5 marks based on:</i></p> <ul style="list-style-type: none"> <li>• Passing fabric through wire brushes raises the surface of the fabric</li> <li>• Air pockets form within the fibres which trap warm air (from the body) keeping the wearer warm</li> <li>• The process also gives a softer warmer texture and handle.</li> <li>• The purpose of the gilet is to keep the wearer warm, particularly the body area. Brushing enhances its ability to do this.</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect/no answer</i> 0</p> <p>Brief description of a brushed finish but little detail in the explanation. Little reference to brushing the fabric specifically for the gilet. Little evidence of appraisal or judgement. 1-2</p> <p>More detailed description of a brushed finish with some explanation and detail related to brushing the fabric specifically for the gilet. Some evidence of appraisal and/or making a judgement. 3-4</p> <p>Clear and detailed description of the process of brushing fabrics with detailed explanation related to brushing the fabric specifically for the gilet. Clear evidence of appraisal and/or judgements. 5</p>			

(d)	An average of twenty plastic bottles were recycled to make enough fleece for the gilet. Analyse the environmental impact of the fleece gilet during its life cycle. Marks will be awarded for the content of the answer and the quality of written communication.	✓		[5]
<p><i>Answers that indicate an understanding of the environmental impact of the fleece gilet throughout its life cycle and where answers are supported with <u>logical lines of reasoning</u> should be awarded up to 5 marks based on:</i></p> <ul style="list-style-type: none"> <li>• The plastic bottles in the first instance are derived from petrochemicals – a finite resource</li> <li>• Plastic does not degrade – a world-wide pollution problem</li> <li>• Recycling the plastic bottles to make fleece goes some way to prevent further environmental damage/waste issues.</li> <li>• Fibres that come off fleece during washing find their way into our waterways – issues for wildlife ingesting plastic/ gets into food chain.</li> <li>• Ultimately, the fleece cannot be recycled; comes from petroleum and will not degrade much like the plastic bottles.</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect/no answer</i></p> <p>Brief description of the environmental impact of the fleece gilet but little detail in the explanation. Little reference to its life cycle. Little evidence of appraisal or judgement.</p> <p>More detailed description of the environmental impact of the fleece gilet with some explanation and detail relating to its life cycle. Some evidence of appraisal and/or making a judgement.</p> <p>Clear and detailed description of the environmental impact of the fleece gilet with detailed explanation related to its life cycle. Clear evidence of appraisal and/or judgements.</p>				<p style="text-align: right;">0</p> <p style="text-align: right;">1-2</p> <p style="text-align: right;">3-4</p> <p style="text-align: right;">5</p>
		<b>Total</b>		<b>20</b>

**Question 5**

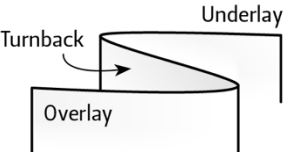
The colour palette shown below was inspired by nature.		AO3	AO4	Mark
(a) (i)	Underline the correct term for taking inspiration from nature.		✓	[1]
	<i>Only acceptable answer:</i> Biomimicry  <i>Incorrect/no answer</i>			1  0
(ii)	Name <b>two</b> other sources designers could use to gain inspiration.		✓	2 x [1]
	<i>Award one mark for each correct answer based on:</i> <ul style="list-style-type: none"> <li>Travel; other cultures; media; technology; new fabrics; art; fashion history; street fashion; existing products.</li> </ul> <i>Accept other suggestions that are feasible.</i>			
(iii)	The print on the dress below, inspired by nature and has been digitally printed.			
	Explain why a designer might find digitally printing fabric a more effective process when developing ideas for new prints.		✓	[3]
	<i>Answers that indicate an understanding of digital printing should be awarded up to 3 marks each based on:</i> <ul style="list-style-type: none"> <li>Designs are developed on CAD programmes in the first instance.</li> <li>The CAD programme links directly to the print machine, so samples can be produced immediately.</li> <li>Designs can be review and amended accordingly.</li> <li>The process is cost effective and efficient, cutting down on waiting times etc.</li> <li>Various samples can be printed simultaneously for comparison.</li> <li>The resolution of digitally printed fabric is often much better than traditional print methods.</li> </ul> <i>Note:</i> <i>Unqualified assertions such as quicker/faster do not gain credit.</i> <i>Digital printing in this question is about the industrial system.</i>			
	<b>Guidance to markers</b>  <i>Incorrect/no answer</i>			0
<i>Brief description but with little understanding:</i> It's a quicker process because designs can be sent to the printer immediately for printing.			1	
<i>A simple explanation with some understanding for example:</i> As the design can be sent to the printer immediately for printing, the quality of the print can be reviewed immediately and changes made if necessary.			2	
<i>A detailed explanation with clear understanding for example:</i> As printed samples are available almost immediately the designs can be reviewed and amended and reprinted if necessary. Multiple designs can be worked on simultaneously so it is an efficient system.			3	

(b)	The fastening known as Velcro was inspired by nature. Analyse the effectiveness of Velcro as a fastening when used in fashion and textiles products.	✓		[5]
<p><i>Answers that indicate an understanding of the use of Velcro as a fastening throughout textiles and where answers are supported with <u>logical lines of reasoning</u> should be awarded up to 5 marks based on:</i></p> <ul style="list-style-type: none"> <li>• Velcro has opposing pieces of fabric one side has tiny nylon hooks, the other a dense nylon pile. These interlock when pressed together.</li> <li>• This is a secure fastening when the opposing sides interlock.</li> <li>• Force has to be applied to separate the sides.</li> <li>• Velcro when fastened will hold firm in all conditions including when wet.</li> <li>• It is an easy method to operate the closure/fastener.</li> <li>• Children/the elderly/infirm can use this fastening method relatively easily and independently.</li> <li>• Versatile: can be used on most products – clothing, footwear, bags, luggage, sports equipment, and many others.</li> <li>• Different widths give varying levels of security.</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect/no answer</i> 0</p> <p>Brief description of the Velcro, some reference to its effectiveness as a fastening. Little or no evidence of reasoning. 1-2</p> <p>More detailed description of Velcro, more relevant references to its effectiveness as a fastening. Some evidence of reasoning. 3-4</p> <p>Clear and detailed description of Velcro with clear and detailed understanding of the its effectiveness as a fastening used throughout textiles. Clear evidence of reasoning. 5</p>				
(c)	Nature has been the inspiration for many technical textile fabrics such as Gortex.			
(i)	<p>Label the diagram below, by using the descriptors from the list provided, to show how the Gortex system works.</p> <p><i>Award <b>one</b> mark for <b>each</b> correct placed label as shown below:</i></p> <div style="text-align: center;"> <p>Water vapour can pass through      Wind and rain are repelled</p>  <p>The diagram shows a cross-section of a Gortex system. It consists of an 'External fabric' (top layer, blue) and a 'Hydrophilic membrane' (bottom layer, green). A pink arrow points upwards from the membrane through the external fabric, labeled 'Water vapour can pass through'. Blue arrows point upwards from the membrane, labeled 'Wind and rain are repelled'. Raindrops are shown being repelled by the external fabric.</p> </div>	✓		[4]


(ii)	Evaluate the benefits to the user of wearing clothing made from technical high-performance fabrics such as Gortex.	✓		[5]
<p><i>Answers that indicate an understanding of the benefits to the user of wearing technical high-performance fabrics and show <u>evidence of appraisal</u> should be awarded up to 5 marks based on:</i></p> <ul style="list-style-type: none"> <li>• It is a breathable system which regulates the body temperature.</li> <li>• As moisture from perspiration can escape, the body does not over heat therefore keeps the wearer more comfortable.</li> <li>• Wind cannot penetrate through the hydrophilic centre membrane. The wearer will not feel the effects of wind chill.</li> <li>• Droplets of rain, larger molecules than perspiration, cannot penetrate the hydrophilic membrane so the wearer remains dry.</li> <li>• Most people who wear this type of clothing are following outdoor pursuits which will require exertion and they would likely become hot as a result. This system ensures their comfort.</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect/no answer</i></p> <p>Brief description of the benefits of a breathable system to the wearer of technical high-performance clothing but little detail in the explanation. Little evidence of appraisal or judgement.</p> <p>More detailed description of the benefits of a breathable system to the wearer of technical high-performance clothing with some understanding. Some evidence of appraisal and/or making a judgement.</p> <p>Clear and detailed description of the benefits of a breathable system to the wearer of technical high-performance clothing with detailed and clear understanding shown. Clear evidence of appraisal and/or judgements.</p>				
<b>Total</b>				<b>20</b>



**Question 6**

Study the picture below which shows a young girl's summer dress.		AO3	AO4	Mark
(a) (i)	Underline the correct term from the list provided for each of the style details labelled <b>A</b> and <b>B</b> .		✓	2 x [1]
<p><i>Only acceptable answers in this order:</i></p> <ul style="list-style-type: none"> <li>• Round neckline. <b>1 mark</b></li> <li>• Sleeveless. <b>1 mark</b></li> </ul>				
(ii)	A series of small pleats have been placed on the waist of the dress. Explain the purpose of the pleats.		✓	[2]
<p><i>Answers that indicate an understanding of pleating can be awarded up to 2 marks based on:</i></p> <ul style="list-style-type: none"> <li>• Pleats are a series of folds in the fabric that draw in fullness.</li> <li>• They allow fullness to the main skirt (part of the dress) but neatly fitted at the waist.</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect / no answer</i> 0</p> <p><i>Brief description but with little understanding:</i> 1 The pleats allow the skirt part to be fitted to the waist.</p> <p><i>A good explanation with clear understanding:</i> 2 The pleats draw in the fabric allowing the skirt part of the dress to be fitted to the waist but more shape over the hips.</p>				
(iii)	Using notes and a sketch, explain how a pleat is formed.		✓	[3]
<p><i>Answers that indicate an understanding of forming a pleat should be awarded up to 2 mark based on the following method:</i></p> <ul style="list-style-type: none"> <li>• The fabric is folded lengthways, then placed back on itself.</li> <li>• At set point the fabric is 3 layers thick.</li> </ul>  <p><i>Accept other appropriate pleating methods – variations on above.</i></p> <p><b>Guidance to markers</b></p> <p><i>Incorrect/no answer</i> 0</p> <p><i>The method might work lacks detail:</i> 1</p> <p><i>A workable method, some understanding:</i> 2</p> <p><i>An appropriate method, clear understanding:</i> 3</p>				

(iv)	Describe a suitable method for finishing the hemline.		✓	[2]
<p><i>Answers that indicate an understanding of hemming for the dress should be awarded up to 2 marks based on the following methods:</i></p> <ul style="list-style-type: none"> <li>• Double folded hem, and stitched</li> <li>• Overlock (neaten the raw edge) turn the edge up and stitch.</li> <li>• Rolled hemline.</li> <li>• Stitching could be machined, hand or invisible.</li> </ul> <p><i>Accept other appropriate methods.</i></p> <p><b>Guidance to markers</b></p> <p><i>Incorrect/no answer</i> 0</p> <p><i>A suitable method lacks detail:</i> Fold the edge up and stitch it in place. 1</p> <p><i>A suitable method, clear explanation:</i> Overlock the edge of the fabric to neaten it, then turn it up and stitch it in place. 2</p>				
(b)	The designer has decided to enhance the flower print on the bodice of the summer dress by machine embroidering over it using thermochromic threads.			
(i)	Complete the following sentence:		✓	[2]
<p><i>Only acceptable answers in this order:</i></p> <ul style="list-style-type: none"> <li>• Colour <b>1 mark</b></li> <li>• Change in temperature <b>1 mark</b></li> </ul>				
(ii)	Describe a functional reason for using thermochromic threads on the dress.		✓	[2]
<p><i>Answers that indicate an understanding of the functional reason for using thermochromic thread should be awarded up to 2 marks based on:</i></p> <ul style="list-style-type: none"> <li>• The colour change indicates change in temperature</li> <li>• A rising temperature is an indication of exposure to the sun/heat</li> <li>• When the child sees the different colour, it could warn them of a rise in temperature – go indoors, seek shelter.</li> <li>• A fun factor that would appeal to children but could prevent over exposure to the sun.</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect/no answer</i> 0</p> <p><i>A limited answer, lacks detail:</i> It would warn a child that it is getting too warm. 1</p> <p><i>A more detailed response:</i> It is a fun way for a child to learn about over exposure to the sun/heat. When it changes colour, they should go indoors. 2</p>				

(iii)	The cotton fabric for the dress has a mercerised finish. Discuss the process of mercerisation and how it affects the aesthetic qualities of the fabric.		✓	[3]
<p><i>Answers that demonstrate an understanding of the process of mercerisation can be awarded up to 3 marks based on:</i></p> <ul style="list-style-type: none"> <li>• Chemical finish.</li> <li>• Fabric soaked in caustic soda cause fibres to swell up.</li> <li>• This creates a stronger and more lustrous fabric.</li> <li>• Only works on cellulosic fibres.</li> <li>• It improves the fabric ability to take dye, gives a deeper and more even colour.</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect/no answer</i></p> <p><i>Brief description but with little understanding:</i> The chemical finish creates a more lustrous fabric.</p> <p><i>A simple explanation with some understanding for example:</i> The fabric is soaked in caustic soda which make the fabric more lustrous.</p> <p><i>A more detailed explanation with clear understanding for example:</i> Soaking the fabric in caustic soda makes the fibres swell leaving a more lustrous fabric. This also allows for a more even and deeper colour when the fabric is dyed.</p>				<p>0</p> <p>1</p> <p>2</p> <p>3</p>
(c) (i)	On the diagram above, draw the pattern mark in the correct position to indicate that the template needs to be cut on the fold. Marks will be awarded for the correct pattern mark and the correct placement of the mark.		✓	2 x [1]
<p><i>Only acceptable answers:</i></p> <p>Pattern mark:</p>  <p>Placement: arrows pointing to the only edge with no broken line.</p>				<p>1</p> <p>1</p>
(ii)	Explain the purpose of the broken lines as indicated on the template.		✓	[2]
<p><i>Answers can be awarded up to 2 marks for understanding of the broken line based on:</i></p> <ul style="list-style-type: none"> <li>• It indicates the stitching line when joining fabric pieces together.</li> <li>• It also indicates the seam allowance.</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect/no answer:</i></p> <p><i>A basic answer:</i> It is the seam line.</p> <p><i>A detailed response:</i> It indicates where the stitching line should be when pieces are joined together.</p>				<p>0</p> <p>1</p> <p>2</p>

(d)	During the iterative process, designers produce a number of toiles for a new product. Explain the significance of this process when developing the girls' summer dress.		✓	[5]
<p><i>Answers that indicate an understanding of the iterative process and the use of toiles in developing clothing should be awarded up to 5 marks based on:</i></p> <ul style="list-style-type: none"> <li>• Testing of prototypes is key in the iterative process.</li> <li>• Toiles are early versions of the final products – dress in this case.</li> <li>• Initially in substitute fabric (calico) but later in the correct fabric.</li> <li>• Tests include: proportion; fitting purposes; different sizes; fabric drape; wearer/user trials.</li> <li>• Aims to perfect the product in a range of sizes prior to production.</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect/no answer</i> 0</p> <p>Brief description of the iterative process, some reference to the production of a toile. 1-2</p> <p>More detailed description of the iterative process, more relevant and appropriate references to the production of toiles. 3-4</p> <p>Clear and detailed description of the iterative process with clear and detailed understanding of the purpose of toiles within this process. 5</p>				
<b>Total</b>				<b>25</b>